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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,207	08/26/2008	Jose R. Marti	PAT 2796W-2	5819

26123 7590 02/06/2012
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EXAMINER

BARBEE, MANUEL L

ART UNIT	PAPER NUMBER
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2857

NOTIFICATION DATE	DELIVERY MODE
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02/06/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipinfo@blg.com

Office Action Summary	Application No. 10/599,207	Applicant(s) MARTI ET AL.	
	Examiner MANUEL L. BARBEE	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-35 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 1-3,5-20,22,23 and 25-35 is/are allowed.
- 7) ☒ Claim(s) 4,21 and 24 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 21 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 4:

The term "about" in claim 4 is a relative term which renders the claim indefinite.

The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "about" makes it unclear what range of frequencies is used for the one frequency.

As per claim 21:

The term "about" in claim 21 is a relative term which renders the claim indefinite.

The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "about" makes it unclear what range of frequencies is used for the one frequency.

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As per claim 24:

The term "about" in claim 24 is a relative term which renders the claim indefinite.

The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "about" makes it unclear what range of frequencies is used for the one frequency.

Allowable Subject Matter

3. Claims 1-3, 5-20, 22, 23 and 25-35 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating the allowance of claims 1-3 and 5-17 is because the cited prior art does not teach a diagnostic device for generating a characteristic impedance for an electrical winding having an input terminal and an output terminal that includes a processing means for calculating the characteristic impedance with the digital signals and the parameters of the electrical signals corresponding to one frequency, based on a transmission line model of the electrical winding. Coffeen teaches a processing means for calculating a characteristic signature based on input and output data (col. 18, lines 26-41), but does not teach calculating the characteristic impedance.

The primary reason for indicating the allowance of claims 18-20, 22, 23 and 25-28 is because the cited prior art does not teach a method for determining a

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characteristic impedance that includes calculating the characteristic impedance based on a transmission line model of the electrical winding with the input signal data and the output signal data corresponding to one frequency. Coffeen teaches a processing means for calculating a characteristic signature based on input and output data (col. 18, lines 26-41), but does not teach calculating the characteristic impedance.

The primary reason for indicating the allowance of claims 29-35 is because the prior art does not teach a method for assessing a condition of an electrical winding that includes calculating an approximate winding displacement from the difference between the current characteristic impedance and the base characteristic impedance. Dister teaches calculating a difference value between a baseline impedance and a measured impedance (col. 12, line 66 - col. 13, line 8). However, as discussed by Applicant's response on page 12, Dister does not teach determining a winding displacement based on the difference value.

Response to Arguments

5. Applicant's arguments filed 9 December 2011 have been fully considered but they are not persuasive. With regard to the rejection of claims 4, 21 and 24 under 35 USC 112, second paragraph, Applicant states that one of ordinary skill in the art would recognize that minimum frequency used to calculate the characteristic impedance of the electrical winding may be lower than 500 kHz, depending on the length of the winding and that one of ordinary skill in the art would not be unclear what range of frequencies is used for the one frequency set forth in claims 4, 21 and 24. However, neither the claims nor the specification show any relation between the minimum frequency and the winding

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length. There is no disclosure of how one would calculate the minimum frequency based on the length of the winding. Therefore, it is unclear what range of frequencies are would fall within the scope of the invention.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MANUEL L. BARBEE whose telephone number is (571)272-2212. The examiner can normally be reached on Monday-Friday from 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mlb
January 30, 2012

/MANUEL L. BARBEE/
Primary Examiner, Art Unit 2857